MONEY AND BANK CREDITS IN THE UNITED STATES.

Money is the medium of exchange. It makes no difference whether it is made of paper, gold, silver or other material, no matter whether it represents gold, silver, labor or some imaginary value; the medium of exchange, that for which everything is bought and sold, is money. Money is sometimes said to be the standard of value, as the yard is the standard of length, but this is a misconception, and has led to many errors. The standard of value may be an ounce of gold, a pound of silver, a bushel of wheat, an hour's labor, while coincidentally, money may be composed of paper or any metal, so long as it represents the standard of value or some multiple or fraction thereof. That it must represent the standard of value is plain. By definition, the standard of value is the basis of exchange; so, evidently, the medium of exchange must be either such standard or its representative.

The standard of value in this country at present is 23.22 grains of pure gold. The money consists of paper and various metals. In the case of the gold dollar, the standard of value and medium of exchange are identical, but the gold dollar is but one of the various forms of money in use.

Bearing this distinction in mind, the essential characteristics of money are: first, that it should represent the standard of value; second, that it should be sufficient in amount to supply the needs of business; third, that it should be elastic. The essentials of the standard of value are radically different. They are: first, it should be as fixed as possible in value; second, it should be capable of being used as money; third, it should be sufficient in amount to act as a basis for money. Of course since money represents the standard of value, if

the standard is bad, lacking any of its essential characteristics the money based thereon cannot possibly be good. But no matter what the standard may be, money in order to be the best possible based on such standard, must possess the above mentioned characteristics. In discussing the money question, therefore, it is not necessary to bring in the matter of standard, since independent of the standard, the system of money may be good or bad in itself.

For convenience, however, this paper is written with special reference to the present standard, but the general principles herein outlined would be just as applicable to either a silver or a bimetallic standard.

The first essential of money is that it should represent the standard of value; at present, therefore, every dollar whether composed of paper, silver or gold, must represent 23.22 grains of gold. This does not necessitate the existence of such gold for every dollar in circulation, but experience proves, and common knowledge now recognizes, that it does require the ability to obtain such gold for every and any dollar whenever desired. If at any time the people become doubtful of the redemption of a dollar in gold, that dollar immediately loses its representative and assumes a speculative character and value.

In order that this confidence should exist, it is necessary that some person or corporation should hold itself out as ready to redeem such dollar; that such person or corporation should be able so to do, and that people should have absolute confidence in such purpose and ability. In order to create confidence in such purpose to redeem such issue, it is necessary that the issuer thereof should be the government, and such purpose its established policy, or else a banking institution with such redemption required by law. In order to create confidence in ability to redeem, if issued by government, its credit must be good and it must have the gold reserve recognized by bankers as sufficient; if issued by a banking institution, in addition to such requirements,

there must be back of such issue a sufficient guarantee or security.

As regards the gold reserve necessary to sustain government notes, the financial world apparently assumes fifteen per cent of the issue to be sufficient. That fifteen per cent is sufficient, provided the policy of redemption in gold is established, the present condition of the United States Treasury proves. There is outstanding in paper money and coin issued by the United States, exclusive of gold and gold certificates, about ten hundred million dollars, and there is a reserve of less than one hundred million dollars of free gold to sustain this issue. This is less than ten per cent, and should be increased, but, nevertheless, now that the policy of the United States has been established by the repeal of the Sherman Act, there is no doubt as to the value of this money, and the mercantile world and people generally have absolute confidence in it.

There is at present in the treasury in addition to this free gold, something less than one hundred million dollars in gold, against which there are outstanding gold certificates. If these certificates were converted into notes merely redeemable in gold, we should then have over one hundred and fifty million dollars of free gold in the treasury, as a reserve against the money, not gold or gold certificates, issued by the United States.

I omit all reference to silver held by the treasury, since, not being the standard of value, and therefore not at present available for the redemption of the currency, it is of no value except as assets increasing the credit of the government; it would, however, become immediately available as a reserve if bimetallism should be adopted. The currency of the United States would evidently be safe beyond cavil, even in times of great financial uncertainty, if it should be the established policy of the government to keep continuously on hand in the treasury approximately two hundred million dollars of free gold for its redemption; one hundred and fifty

million dollars thereof being set aside by law to be used for such purpose and for no other, and the Secretary of the Treasury being authorized and empowered at any time when such fund should fall below one hundred million dollars to issue short term gold bonds of the United States to an extent not to exceed fifty million dollars for the purpose of restoring it. It should be, as it is, the policy of the government to increase the free gold in the treasury held for redemption purposes as rapidly as possible until it shall reach one hundred and fifty million of dollars.

In order to facilitate this end, the further issue of gold certificates should be prohibited by law, and when the certificates now outstanding are returned to the treasury, they should be canceled, and treasury notes redeemable in gold issued instead, for so long as gold can be obtained on demand for treasury notes, these gold certificates are of no special utility in the financial world, and diminish the amount of free gold held by the United States. The adoption of this law might well result in the increase of the gold reserve. It is probably expedient, however, to issue gold bonds for this purpose.

It is of course desirable that the present policy of the government to redeem all its notes in gold should be confirmed by law. As already stated, there are outstanding government notes and silver to the extent of about ten hundred million dollars; in addition to this, there is also in circulation gold and gold certificates to the estimated amount of about five hundred million, making the total amount of money in circulation issued directly by the government, exclusive of that in the treasury, over fifteen hundred million dollars.

This money at present possesses the first essential of good money, it represents the standard of value, and by the adoption of some such measures as above suggested, such character can be easily and permanently maintained, even if it should become necessary in the future to increase the amount of issue.

As for the second characteristic of money, namely, its sufficiency to supply business needs, this issue is insufficient, but as it entirely lacks elasticity, there is probably as much of it as it is desirable to have. The absence of elasticity is characteristic of any money issued directly by the government, for the reason that there is no method of withdrawing such money from circulation, unless voluntarily returned by the holders, nor is there any method of expanding the issue except by committing such expansion to the discretion of some officer of the government,—an objectionable plan.

In order that the currency should be properly elastic, it should expand and contract automatically in response to the financial needs of the country. This quality can never be possessed by money issued by the government. Therefore, in order that the money of this country should possess the necessary elasticity, the government issue should be supplemented by some other form of currency. In view of this fact, it would be unwise at this time to increase the amount of this money, it being now almost sufficient to supply the needs of the country, and leaving but a comparatively small margin for the supplementary currency necessary to give elasticity to the whole.

The only other form of money is the bank note. In order that these notes should represent gold, it is not necessary that they should be payable in gold by the banks upon demand; it is sufficient if they be payable in the notes of the United States which are immediately convertible into gold; provided, of course, that upon failure of the bank to redeem, they become treasury notes, and therefore themselves redeemable in gold by the government.

As for the reserve necessary to be held by the banks for their redemption, as there is no likelihood that any large number will be presented for redemption at one time, there is no occasion for a large reserve. The present legal reserve of from fifteen per cent to twenty-five per cent of legal tender notes of the United States, has been found sufficient.

But what is required, is reasonable certainty as to solvency, and protection against possible insolvency of the issuing bank. It is only in the latter case that the responsibility for such notes falls upon the government, and therefore upon its reserve of gold. With a proper banking system, therefore, a gold reserve of one hundred and fifty million dollars is sufficient to support not only the present government issue but bank notes to a very large amount based thereon; and as there is over five hundred million dollars of gold in this country and a large annual output, there should be no difficulty in maintaining such reserve. The difficulty is not to provide sufficient money, but to make it elastic. Our national banking system has ceased to fulfill its function of providing a circulating medium, and it never did provide a sufficiently elastic one. At one time, now past, when owing to the higher rates of interest borne by government bonds, it paid the banks to issue currency, it provided a safe circulation, but since such circulation could not be increased except by the deposit of additional securities, its expansion was most difficult when most needed, during times of financial stringency. The issue being further hampered by the difficulty of promptly providing the notes themselves. At present, however, owing to the low rate of interest and high premium on government bonds, the issue of money is unprofitable to the banks, and the circulation has a tendency to decrease. The national banking system therefore should be modified so as to overcome these difficulties.

In this connection, it has been suggested by bankers that no security for bank notes is necessary and none be required, as where security is required elasticity is impossible. The history of our national banks shows that with a bank circulation limited to the amount of the capital, an annual tax of one per cent has more than sufficed to redeem the circulating notes of all the banks that have failed during the past thirty years, and therefore it is claimed the government would be safe in authorizing such issue upon such conditions. But

the conclusion is neither logical nor necessary. How can it be known that the mere authorization of such issue would not give an impetus to wild-cat banking that would lead to serious loss? Certainly, it cannot be assumed that the results would be the same, the conditions being changed. On the contrary, the profits of such circulation would be so large, that probably banks would be organized for the express purpose of obtaining the benefit thereof, which would result in an inflation of currency and of credit, with all its resulting evils of a crisis, bank failures and depression. Nor is it certain that the desired elasticity would be attained. The tendency would be for the banks to issue their full quota of currency without delay, leaving no opportunity for further expansion in case of stringency. It is evident, therefore, not only for the security of the currency, but to prevent an undue expansion thereof, and to protect the banking system, that security must be required for the normal bank issue. Nevertheless, the objection is well taken that the absolute necessity of security prevents elasticity. Logically, therefore, provision should be made for an additional bank issue under exceptional circumstances without additional security, care being taken that this increase should be automatically limited to times of special stringency and that the stringency having passed, it should automatically withdraw itself.

But first should be considered the securities to be required for the normal issue. At present the total national bank issue is about two hundred million dollars, and this may be expected to diminish as it is greater than normal owing to the late panic. Each bank is at present authorized to issue notes to the extent of its capital, which is by some thought to include surplus and undivided profits. The total capital of the banks is at present about seven hundred millions. The surplus and undivided profits increase this amount to over one thousand millions.* Although it is necessary that provision be made for an increased bank circulation, both

* Comptroller's Report, 1893, p. 4.

ordinary and extraordinary, there is no present need for any such amount as this and probably will not be for some time, especially as the issue authorized by law increases with the banking capital. It would probably be sufficient if the banks were authorized under normal conditions to issue their notes to the extent of one-half of their capital, surplus and undivided profits, the conditions of such issue being made favorable rather than almost prohibitive as at present. This would authorize a normal circulation of something over five hundred millions of dollars, at the same time leaving room for an expansion under exceptional circumstances to double this amount, without the circulation of any bank at any time exceeding its capital, surplus and undivided profits. But this normal issue of five hundred million dollars requires a deposit of securities of an even larger amount. Since United States bonds no longer answer this purpose, securities must be looked for elsewhere, their essential characteristics to be strength, value and marketability. As the selection of such securities can not wisely be left to the discretion of any one, conditions must be found which being required of the securities, will insure their possession of these qualities without affording any opportunity for discrimination on the part of any officer of the government. Public securities should be utilized as far as possible, not only because their value is more fixed and determined, but also because the increased market therefor would be to the public benefit.

Outside of the United States and District of Columbia bonds, the principal forms of public securities are State, territory, county and municipal bonds. With regard to State and territory bonds, the provision of the New York savings bank investment law,* that there should have been no default in the payment of either principal or interest thereon during the preceding ten years, recommends itself. With regard to county and municipal bonds, the same provision, with the additional limitation to the bonds of

* Revised Statutes, N. Y., p. 1568.

corporations of at least 10,000 population, whose debt does not exceed ten per cent of assessed valuation, seems to be sufficient. Provisions of this character are found in the savings bank investment laws of various States. But the total amount of State, territory, county and municipal bonds filling these requirements is largely under one thousand million dollars, probably does not equal seven hundred million, so there is not a sufficient amount thereof available at a profitable price.

Having exhausted public securities, we come to those most nearly resembling them—railroad bonds. Railroads being public corporations are subject to State control, and their interest is to a great extent public interest. But can conditions be imposed which will satisfactorily insure their fixed and permanent value. The provision of the savings bank investment law of Connecticut * controlling such investments seems to be good. This law permits investments only in the first mortgage or consolidated bonds of such railroads as have paid at least five per cent dividends on their stock for each of the five preceding years. This requirement would seem to be entirely sufficient. This is strikingly evident by a statement published in the "Investors' Supplement" of the *Financial and Commercial Chronicle* of January 27, 1894, which shows the dividends *paid* in each of the last seven years, 1887 to 1893, both inclusive, on all steam railroad stocks sold at the Stock Exchanges in New York, Boston, Philadelphia and Baltimore. The statement covers some 156 roads and systems, including the principal lines in this country. Of these some sixty-two paid five successive five per cent dividends from 1887 to 1893, and their bonds would, therefore, have been acceptable as security under this provision. Not a single one of these lines, as far as can be discovered, was seriously affected by the panic of 1893 but one, the Central Railway and Banking Company of Georgia defaulted in the payment of the interest

* General Statutes, Conn., section 1800.

on its bonds, and this line, the only one, paid no dividends on its stock in either 1892 or 1893. In not a single other case, apparently, was the stock, much less the bonds, of any of these roads seriously affected by such panic. No stronger, more definite proof than this table could be given of the sufficiency of this requirement. As the statement is at the command of any one, it is not necessary to reproduce here the whole or any part of it. It speaks for itself. But an examination of it shows that the condition could properly be extended to cover four per cent dividends. There were seven railroads that failed to pay five per cent, but did pay four per cent, for five successive years, and they are among the strongest in the country. It is the regularity of the dividend that determines the character of the road. As noted, the Connecticut law only accepts a first mortgage or consolidated bond. This would lead to confusion and be unsatisfactory. In these days of consolidations and reorganizations, the difference between first and second mortgages is often more nominal than real. A better requirement in lieu thereof would be that the bonds themselves should be listed securities, selling on the market on a certain basis, say that of five per cent. If there was any peculiar defect or insufficiency in the security, or any fraud or irregularity about the declaration and payment of the dividends, it would show itself in the value of the bonds. As regards the amount of bonds available under this provisión, the bond issues of the lines shown by the statement above mentioned to have paid such dividends alone aggregate some one thousand million dollars (as is shown by the report on such lines in the same supplement), of which bonds almost all are selling upon a five per cent basis. These bonds, therefore, together with public securities, should furnish a safe, profitable and sufficient basis for the normal bank circulation. If not, however, this dividend requirement could be made applicable to other securities. Whether or not bonds fulfill the above conditions is a matter of public record, and

no unfortunate discretion need be lodged in the treasury. The banks might well be authorized to issue circulation to the extent of ninety per cent of the market value of the securities deposited, provided that no more than twenty-five per cent of the bonds deposited by any one bank could be issued by one corporation. Provision would, of course, be made for the maintenance of the security in the event of the depreciation of any of the bonds. It would be unwise to require the banks to immediately replace any such bonds as fell below the standard. Such depreciation would ordinarily occur during a panic, and such requirement would cause further break in prices and additional stringency. Nor would it be necessary, since there would be a surplus security of ten per cent, and a fall of fifty per cent in the value of any one bond could not, at the outside, diminish the total security of any one bank more than twelve and a half per cent. It would seem to be fully sufficient if the treasury were authorized to call upon the banks to make good such temporary depreciation by the deposit of additional securities, and only in the event of any bond remaining below a five per cent basis for over six months, or in the case of railroad bonds, if the stock dividends for two successive years fell below five per cent, to call upon the banks to replace them. Any loss that might occur under these conditions would be covered by the annual tax of one per cent.

In order that the normal currency in circulation should correspond approximately to the needs of business, banks should be relieved from the payment of such tax and allowed to withdraw such securities to the extent of the lawful money of the United States they might deposit with the treasurer. To provide for the immediate expansion of the currency in times of financial stringency (a necessary characteristic of a good currency, and one most difficult to obtain), it is essential that at such time the banks be authorized to increase their circulation without additional security. It is

not practicable for the government to increase its issue, since the time and amount thereof would not then be regulated by the financial situation, but by the discretion of some officer. At present the banks can only increase their circulation by providing additional security, the result being a want of elasticity. The currency responds slowly to the demands of business, but neither fully nor quickly, as was shown by the last panic. The banks must be authorized therefore under special conditions to issue a limited amount of money without additional security, and in order that such money should be easily and quickly both issued and withdrawn, it should be in the form of treasury notes, which can be constantly held in the treasury for the purpose. Bank notes can neither be procured nor subsequently withdrawn with sufficient ease.

That the notes should only be issued during times of financial stringency and to an extent necessary to relieve such stringency, and should be withdrawn as soon as the stringency may have passed, it is necessary and sufficient that the issue be only authorized under conditions imposing a continuing loss upon the banks under normal circumstances. This can be accomplished and accomplished only by imposing a practically prohibitive tax thereupon,* say four per cent per annum. With such tax, remembering that a portion of the issue must be held as a reserve, no bank could afford to increase its circulation except during a panic, and after a panic the banks would hasten to withdraw their notes and be relieved thereof. If the issue be composed of treasury notes they could be issued without delay, and after a panic the banks could immediately return treasury notes to the amount of issue and thus reduce the currency to its normal condition. Under such circumstances the currency would be sufficiently elastic. But would the government be secured against possible loss? Under normal conditions, it has been suggested that the banks be authorized to issue currency to the

* Plan adopted by Imperial Bank of Germany.

extent of fifty per cent of their capital, surplus and undivided profits, and to the extent of ninety per cent of the market value of the securities deposited. The banks therefore could be authorized to double their circulation without the total issue of any bank exceeding its capital, surplus and undivided profits. But assuming that under the proposed conditions for normal circulation, the banks would issue the maximum amount authorized, this would provide for an expansion of the currency in times of stringency of over five hundred millions of dollars, while an increase of one-half this sum would probably be adequate. It would seem sufficient to authorize the banks to increase their circulation by one-half subject to the tax of four per cent per annum upon such increase. Under these circumstances, the total issue of a bank could in no case exceed seventy-five per cent of its capital, surplus and undivided profits, or 135 per cent of the value of the securities deposited with the treasury.

In order to further secure the government against loss, the increase of issue should rank as general debts against the bank in case of insolvency; if considered desirable, they might even be made a first lien on all the assets thereof. It is to be remembered that this currency will only be outstanding for a limited time. In order to insure this the treasurer should have the right to recall the issue of any bank at any time six months after issue or whenever and to the extent that the capital, surplus and undivided profits may be impaired. This would prevent any possible abuse of this privilege. The treasurer could withhold the issue if he had any reason to doubt the capital, surplus and undivided profits of the bank to be as represented until he assured himself of such fact.

The increased issue would appear to be perfectly safe under these conditions, but if there should be any loss resulting therefrom the tax of four per cent per annum would provide a large fund for the payment thereof. This exceptional issue would seem to be sufficient to relieve any possible

financial stringency, provided the national bank currency amounted, as suggested, to five hundred million dollars. Apparently there would thus be provided a safe currency, supplementary to the treasury notes, silver and gold, already outstanding and amounting to over fifteen hundred millions of dollars, that would give elasticity to the whole, and which would be limited only by the banking capital of the country. There is, however, another form of money, or rather substitute for money, yet to be considered, viz: Bank checks or drafts representing bank credits, which therefore must represent money.

It is estimated that ninety per cent of the business in this country is done by check, and only ten per cent thereof by currency, currency being but the so-called change of the mercantile world. But these figures do not fully represent the relative parts played by these two mediums, since banks are required to maintain a currency reserve varying from fifteen per cent to twenty-five per cent against their deposits and circulation. Without currency credits could not exist; the latter merely represents the certainty of obtaining the power. Further than this it may be noted that the total individual deposits of all the national banks in this country amount to less than fifteen hundred million,* while the total amount of money in circulation (including bank reserves) exceeds sixteen hundred million dollars. Business, however, is largely done by the transfers of credit instead of currency, and any expansion or contraction thereof is equivalent to an expansion or contraction of the currency itself. An undue expansion thereof will cause an apparent redundancy of money with its attending evils, such as speculation and general overtrading, and an undue contraction, a stringency with its resulting depression or panic. The history of panics† proves that they usually follow periods of undue speculation. A period of general prosperity leads to a general feeling of

* Comptroller's Report, 1893, p. 4.
† "A Brief History of Panics in the United States." Juglar.

confidence resulting in an expansion of bank credits which, reacting on business, leads to a season of increased prosperity, high prices and speculation; speculation not only often improper in itself, but to an extent not warranted by the capital of the country. This continues until the failure of many such speculative enterprises shakes financial confidence. The banks immediately respond by the contraction of loans; the greater business done by the banks in proportion to their available assets, the more sudden being this contraction, for their margin of safety is less.

A bank, a default upon ten per cent of whose loans and discounts would mean insolvency, is much more subject to financial disturbances than one which can afford to lose twenty-five per cent thereof.

This contraction in loans leads at once to a decline in deposits, and general stoppage of business and fall in prices, and a period of liquidation, for which purpose and the further purpose of supplying the decrease in bank credits, an increase of the currency in circulation becomes necessary and it is thereupon withdrawn from the banks by the depositors. To supply this demand, the local banks are compelled to call upon their reserve agents, thus causing a currency stringency in financial centres, with its attending evils. With restored confidence, however, the demand for currency ceases, which then accumulates in the banks, forming the basis for a rebuilding of credits.

This last panic followed as usual after a season of credit and speculation, being precipitated by the refusal of foreigners to longer hold our securities owing to a lack of confidence in our general financial policy. It was checked by the restored confidence resulting from the repeal of the Silver Bill, and the action of the banks in uniting to maintain credit.

We are now in the recuperative stage, which should be rapid for the reason that the precedent speculation did not reach its maximum. From this review we see the part played by the banks in these crises. By an undue expansion

of credits they favor speculation and then increase the reaction by the sudden contraction thereof below the normal, in order to maintain their reserve and security; although they do what they can to obviate a panic by combining for this purpose through their clearing houses.

Evidently, therefore, a good banking system should check as far as possible this tendency to unduly inflate credits during times of general prosperity, should protect the banks against the danger resulting from financial failures and the impairment of confidence, and should as far as possible furnish them with the means of at once supplying the increased demand for money, and at the same time of maintaining and even increasing their reserves during these periods of stringency and panic. It is not practicable by law to prevent the undue expansion of credits, since no matter what limitation is imposed thereon by reserve or other requirements, credits can be indefinitely expanded by a corresponding expansion of banking capital. This method of expansion, however, is not so much to be feared. Not only because an increase of banking capital represents an increase of wealth which would probably warrant the increase of credit, but, in addition, so long as there is a reasonable ratio existing between banking capital and banking credits, a depression in business could not so seriously affect the banks, and would therefore expend itself with less serious results. What can be and to some extent should be regulated is this very matter of ratio between banking capital and banking credits. And by banking capital is not meant all the assets of the bank, including capital, surplus and undivided profits, no matter how invested, but only that portion thereof available for banking purposes, that is, in the form of currency. This evidently amounts to the capital, surplus, undivided profits and circulation, less the amount thereof invested. It is to be noted, however, that by the banking system herein suggested any securities held by a bank can profitably be converted into circulation, and thus become a part of its banking capital.

At present the only general regulation of banking credits is the requirement of a reserve fund of from fifteen to twenty-five per cent of the combined deposits and circulation; an admirable provision. But it evidently protects credits, rather than limits them.

As a rule, the currency held by a bank does not exceed its banking capital, and in such cases the desired ratio is maintained by this provision; but in times of general prosperity, banks of large business by loaning their depositors' money, which is again deposited, may have both deposits and discounts to an amount ten times their banking capital and yet maintain their legal reserve. In this latter case, the reserve not belonging to the bank, their business is not only largely done on other people's money, but their credits are largely based thereon. This reserve requirement, therefore, although good in itself, admits of an undue expansion of both deposits and discounts, with the attending evils. The undue expansion of credits by fostering speculation, ultimately brings on a crisis, which the banks, owing to the disproportion between their banking capital and discounts and to the fact that their legal reserve is largely made up of depositors' money, are not in a condition to sustain. That this condition of affairs existed prior to the last panic, is shown by the Comptroller's Report of 1892, Volume II.

It was and is especially general in the banks of the reserve cities and naturally, since these banks carry large sums belonging to other institutions, which count as parts of their own reserves. It is not advisable to particularize, but there were many banks in both New York and Chicago where both the liabilities and discounts exceeded ten times the banking capital. That this is unfortunate is plain. In times of stringency, with the consequent demands for money, local banks at once draw on their reserve agents for funds, thus diminishing the latter's reserve and causing a currency stringency in financial centres. This was the situation in New York and some other cities during the recent panic, and

necessitated the issuance of clearing house certificates. This action of the banks is to be commended, and yet the necessity for it should be avoided if possible. It is really but the lending of the credit of the stronger to sustain the weaker, which action under certain conceivable circumstances might endanger all the consolidated banks. It is to be noted that this measure, while strengthening the weaker banks, does not relieve the currency stringency. These certificates can neither be used as money nor count as part of the reserve. As a coincidence, it might be mentioned that the certificates * issued by the New York clearing house during this past panic approximately equaled that portion of the reserve of the New York banks which was made up of depositors' money; about thirty-five millions of dollars.† It would seem proper, therefore, to limit the business that a bank should do upon a certain capital. A bank's reserve should consist of its own funds. It is suggestive that this end can be attained by limiting discounts; the effect on deposits being indirect and yet certain. The reason is evident. So long as a bank does not reloan its deposits it is acting merely as a depository of funds and credits are not expanded. It is only when the deposits are loaned and again deposited that expansion results. What must be limited therefore are discounts, the deposits will then limit themselves. The proper limitation for a given reserve is a matter of calculation. It is evident that a bank's reserve (meaning cash on hand) loans and discounts taken together always equal the aggregate amount of its banking capital and deposits, or, as it may be expressed:

1. Reserve + Loans = Deposits + Banking Capital. Assuming the reserve required by law to be twenty-five per cent, let us suppose that the actual cash in possession of the bank has been reduced to exactly this amount and then inquire what will be the amount of its loans and discounts when such cash reserve equals and therefore has absorbed

* Comptroller's Report, 1893, p. 16.

† Comptroller's Report, 1892, p. 46.

the bank's entire banking capital. By assumption we have,

2. Reserve = one-fourth of Deposits, or Deposits = four times Reserve and that

3. The Reserve = Banking Capital, but substituting four times Reserve which by (2) equals the Deposits in the equation (1), we have

4. Reserve + Loans = four times Reserve + Banking Capital, but again substituting Banking Capital which by (3) equals the Reserve, we have

5. Banking Capital + Loans = four times Banking Capital + Banking Capital, or the Loans equal four times the Banking Capital. So long then as the Loans and Discounts do not exceed four times the Banking Capital, the bank will make all such loans and discounts out of *free* money, *i. e.*, after loaning such money, the bank will still hold in cash a sufficient amount of its capital to secure all deposits which it may have used in loans; but after such point has been reached, all further loans will encroach upon that portion of its banking capital which is necessary to secure deposits which it has already so used.

Therefore, in order to regulate the credits and deposits as suggested, it is necessary and sufficient to limit the discounts to four times the banking capital. It is not intended, however, to fix arbitrarily upon this special limitation. It may be that a reserve of fifteen per cent of the bank's own funds is sufficient, in which case the limitation would be modified to correspond thereto. What is insisted upon, is the desirability of establishing some such limitation. But we will inquire for a moment how this special limitation will affect the present banking situation. The Comptroller's Report shows that outside of the central reserve cities, the banking situation will not be seriously affected, since the loans of but few banks exceed four times their banking capital. But in New York and Chicago quite a number of banks would be compelled either to contract their discounts or to increase

their banking capital. In New York, but New York only, the total discounts prior to the last panic, exceeded four times the total banking capital, the loans being $344,000,000, the banking capital $61,250,000.* But October 3, 1893, the loans had been decreased to $281,000,000, and the banking capital increased to $67,000,000, while the capital invested in securities was over $23,000,000.†

Under the provisions regarding bank circulation, herein suggested, such assets to the extent desired could easily and would probably be converted into currency, thus increasing the banking capital to the required extent. If this provision should lead to more conservative discounts in New York and Chicago, possibly an advantage would be gained. The only banks that will have any difficulty in converting assets into currency, and which therefore may possibly be compelled to contract their loans, will be those which have invested largely in office buildings. But no banker will seriously maintain that the banking business should be conducted on such basis. Such investments are now contrary to the spirit of the law.

But, as already stated, outside of the cities above named, very few of the banks have discounts exceeding four times their banking capital. The adjustment to this law therefor, a reasonable time being allowed, would certainly take place without any serious financial disturbance.

It is not supposed that the plan outlined would entirely do away with *all* undue expansion or contraction of credits or currency, with speculation, depression or panics. So long as business is done by men it is liable to such disturbances, but certainly these provisions should diminish both the frequency and intensity of panics, and should enable the banks better to withstand and ultimately to relieve them. The provision limiting discounts would regulate credits and would strengthen the banks in times of stringency, while

* Comptroller's Report, 1892, p. 46.

† Comptroller's Report, 1893, p. 115.

coincidently, by calling upon the government for treasury notes, they would be able to immediately increase their banking capital and reserve; and such increase being in the form of currency would be available to relieve any existing stringency. As the additional currency thus available would probably aggregate one-fourth the entire banking capital of the country, thus amounting to two hundred and fifty millions of dollars, its influence should be effective.

In the brief space of this paper there has been no attempt to exhaust the subject of currency and banking, but only to outline a development of the present system which would supply some of its deficiencies and remedy some of its defects. There has been no attempt to go into the details of the system. There has been only space for the treatment of its main features. The plan outlined herein is necessarily subject to criticism and modification, but it is thought that its general features will recommend themselves and prove beneficial if adopted.

SUPPLEMENTARY NOTE UPON THE "BALTIMORE PLAN."

Since the submission of the foregoing paper to the Academy the Bankers' Association has approved and promulgated the "Baltimore plan for the creation of a safe and elastic currency." This plan provides:

1. National banks shall be authorized to issue notes to the amount of fifty per cent of their unimpaired capital, subject merely to an annual tax of one-half of one per cent.

2. To issue notes to the additional amount of twenty-five per cent of such capital, subject to an annual tax so severe as to prevent such issue except under special circumstances and to cause their withdrawal upon the return to normal conditions.

3. All such notes to be guaranteed by the United States, and in the event of the insolvency of the issuing bank to be redeemable at the treasury.

4. No security of any kind to be deposited by the banks to protect such issue excepting a guarantee fund of five per cent thereof.

The general similarity between these suggestions and those made in the foregoing paper is noteworthy. The suggestions are along the same line, and have the same end in view. Unimpaired capital, instead of capital, surplus and undivided profit, is made the basis of circulation, thus without apparent necessity limiting its effectiveness, but the only divergence of any importance is the total abolition recommended by the Bankers' Association, of all provisions requiring banks to deposit securities to secure their *normal* circulation, and the substitution in lieu thereof of a small guarantee fund. This special suggestion is urged by the bankers on the score of necessity. "The first essential," say they, "of a good currency is elasticity; elasticity is impossible if security be required; therefore, no security should be required." This is perfectly true, but only with reference to that issue which is to furnish this elasticity. The power of expansion to meet a special demand is indeed destroyed if security is required, as a condition precedent to such expansion, but the fact that security has been previously required and previously deposited to secure the normal circulation is of no importance whatever. The Baltimore plan provides for a normal circulation of fifty per cent of the banking capital without security, perfectly safe, probably, as it is guaranteed by the government, and which will evidently contract and expand with the banking capital of the country, but yet as evidently without any other or further elasticity whatever. By entirely repealing the security requirement, they would indeed deprive this normal issue of whatever special elasticity it might otherwise possess. It would thereby be made so profitable to the banks (the tax of one-half of one per cent being inconsiderable) that the maximum amount authorized would plainly be always outstanding. This fact is recognized in the publication of the Baltimore Clearing House, regarding

the plan. The automatic expansion and contraction of this issue with the banking capital of the country is, indeed, a most important and valuable feature, in that our present currency is entirely lacking in the capacity of expansion to meet the constantly increasing financial needs, but this quality would evidently be characteristic of any such issue authorized under conditions sufficiently profitable to the issuing banks. In fact, if the issue were less profitable, if the conditions imposed were such as to leave the banks, so long as there was a demand for money, to maintain the maximum authorized circulation, but in case of a plethora to reduce their issue, a distinct gain would be made. In this way a security requirement or other burden might well add some little elasticity to this normal circulation. But in truth the currency provided for by the Baltimore plan, like that suggested in the original paper, depends for its special elasticity upon the emergency issue, and such elasticity therefore is in nowise affected by the requirement *vel non* of security for the normal circulation.

As stated, this normal issue must be made profitable to the banks, in order that it should automatically expand with the banking capital, and to this end securities other than government bonds must be accepted, but it does not follow that no security whatever should be required. In the absence of such controlling necessity, as the advocates of the Baltimore plan assume to exist, it would seem for many reasons inexpedient, if not dangerous, to confer upon the banks this unrestricted power to issue notes. The suggestion that the plan has been successfully tried in Canada is misleading. Financially, Canada and the United States are as far apart as the poles, but the controlling fact is that there are in Canada but thirty-nine banks of issue with an average capital exceeding fifteen hundred thousand dollars,* while in this country there are 3781 such banks, with an average capital of less than one hundred and eighty thousand

* Comptroller's Report, 1893, p. 251.

dollars.* We would indeed be reckless to confer this unusual power upon these 3781 banks simply because the thirty-nine banks of Canada had exercised it safely for several years. It is also urged that the experience of the past thirty years proves that the guarantee fund of five per cent, together with a prior lien upon the bank's assets, would be more than sufficient to protect the government against any loss on account of its guarantee. And this may be so, although there is no certainty that the conditions being changed, the experience of the past will repeat itself in the future; but even if so, the priority of the government would be at the expense of the depositors. But however this may be, the objection to the proposed plan goes deeper. It is not simply that the currency would not be entirely safe and acceptable, not that the government would not be fully protected against any loss; the danger to be feared is to the banks themselves, to the national banking system, and, through it, to the public. In formulating this plan the bankers had but one purpose in mind, to provide for an issue by their banks of a safe and elastic currency to meet the ever-increasing needs of business, but it naturally did not occur to them that they might thereby endanger the safety of their own banks, and therefore the financial world, that it might be necessary to provide against the improper exercise by the banks of the powers conferred upon them. It naturally did not occur to the Baltimore bankers, who are justly famed for their conservative and proper methods, that by making banking under the national laws too profitable, they might be the innocent cause of an error of reckless banking, bringing another panic in its train with serious resulting injury to the entire national banking and financial system. It is this difference in the point of view which has caused the divergence between the Baltimore plan and the one outlined in the foregoing paper. The two plans provide for the same currency, a normal circulation of fifty per cent, an emergency issue of twenty-five

* *Ibid.*, p. 114.

per cent of the banking capital of the country, guaranteed by the government. But here the Baltimore plan stops, leaving to the banks entire freedom in the issuance of such circulation, while, from the public point of view, it would seem desirable to go a step further and provide against the reckless banking and overtrading that might result from the unrestricted exercise of such powers. Our banking system has worked admirably, and has reflected much honor both upon its originators and administrators. Its profits being slow and the result of capable, honest work, it has offered but little temptation to the speculator, and its management has been generally of a most conservative character, although in certain cases, as shown in the original paper, misled by an apparent abundance of money not their own, the banks have permitted an unwarranted expansion of credits with unfortunate results. The advocates of the Baltimore plan would be the last to consciously risk this conservatism, and yet such might be its effect Its adoption would not only cause an immediate expansion of the currency, but would practically add fifty per cent to the original capital of every national bank, thus increasing both their capacity and temptation to expand credits. It would also lead, and herein lies the danger, to the organization of many banks, possibly thousands, by speculators solely for the purpose of obtaining the benefit of this authorized circulation, and these new banks, thus organized not for legitimate, but for speculative purposes, would inject a new and unknown element into our banking system, which might well cause an error of expansion and speculation with the resulting reaction and panic.

It would seem, therefore, the part of wisdom, even if not necessary to protect the government and the note holder, then to protect the banks and the public, to impose such conditions upon this normal issue as would render it less temptingly profitable. The logical condition (as it would at the same time avoid other objections that might be raised)

would seem to be the continued requirement of a deposit of securities, not government bonds but such as would insure the banks a reasonable profit upon the issue. In the original paper an effort has been made to select such securities, but if it is objected that subject to the deposit therein suggested the issue will not be sufficiently profitable to fulfill its purpose, then others could certainly be found that would be satisfactory. If the government and note holders need no further protection than that provided for in the Baltimore plan, the most liberal security requirement would serve to protect the banks and the public.

The latter purpose, indeed, might be attained by simply increasing the tax upon the normal issue from one-half of one per cent to such an amount, say two per cent per annum, as would leave but a reasonable margin of profit to the issuing banks; especially if concurrently a bank's discounts were limited to some definite multiple of its banking capital. Such modifications of the Baltimore plan, it is suggested, are well worthy of serious consideration, especially as the suggested increase of tax would be of benefit to the currency in giving it a certain elasticity. Certainly, the plan cannot be adopted as proposed, if for no other reason, because by rendering banking too profitable, it might cause an era of bad banking, which would not only do serious injury to the country, but might affect the integrity of the national banking system itself.

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